IN THE CLAIMS

Please amend the claims as follows:

1. (original) Method for increasing the sensitivity of a chain of amplifiers that comprises the steps of: amplifying a signal by means of a first amplifier with a gain factor $A_1 = A_{1,m} * \Delta A_1$, where $A_{1,m}$ denotes a constant gain factor and $\Delta A_1$ denotes a gain factor variation with $1 \leq \Delta A_{1,min} \leq \Delta A_1 \leq \Delta A_{1,max}$, further amplifying the signal by means of a second amplifier with a controllable gain factor $A_2 \leq A_{2,max}$, where variations $\Delta A_1$ of the gain of the first amplifier are compensated by reducing the gain $A_2$ of the second amplifier, so that the difference between the chain gain factor $A_C = A_1 * A_2$ and a target chain gain factor $A_T \leq A_{T,max}$ becomes zero, characterised in that the signal at the output of the second amplifier is additionally fed into a divider that applies a fixed factor $A_3 \leq 1$ to its input, that variations $\Delta A_1$ of the gain factor $A_1$ of the first amplifier as well as the fixed factor $A_3$ are at least partially compensated by the gain factor $A_2$ of the second amplifier, so that the difference between the chain gain factor $A_C' = A_1 * A_2 * A_3$ and the target chain gain factor $A_T$ becomes minimum, and that the fixed factor $A_3$ is chosen so that there exist at least some combinations of values $\Delta A_1$ and $A_T$ for which said difference can be forced to zero, and some combinations of values $\Delta A_1$ and $A_T$, for

which said difference can no longer be forced to zero due to the limitation $A_2 \leq A_{2,max}$.

2. (original) Method according to claim 1, characterised in that said factor $A_3$ is chosen so that said difference can be forced to zero for large values of the variation $\Delta A_1$ and/or small values $A_T$, and that said difference can no longer be forced to zero for small values of the variation $\Delta A_1$ and/or large values $A_T$.

3. (currently amended) Method according to ~~any of the claims 1-2~~ claim 1, characterised in said fixed factor $A_3$ is further chosen so that for a group of target chain gain factors $A_T$, the second amplifier works with a gain factor $A_2$ that is close to its maximum gain factor $A_{2,max}$, that for these target chain gain factors, the greatest possible independence of the gain factor $A_2$ from the variation $\Delta A_1$ is achieved and that a difference between the chain gain factor $A_C'$ and the target chain gain factor $A_T$ is accepted especially for smaller values of $\Delta A_1$.

4. (original) Method according to claim 3, characterised in that group of target chain gain factors $A_T$ are the most frequently occurring target chain gain factors.

5.  (currently amended)  Method according to ~~any of the claims 1-4~~ <u>claim 1</u>, characterised in that the gain factor $A_1$ defines the product between the maximum gain factor of a tuner that down-converts a modulated Radio Frequency (RF) signal to a broadband Intermediate Frequency (IF) signal and the gain factor of an IF filter that transforms the broadband IF signal into a narrowband IF signal, where the gain factor of the IF filter is fixed and the maximum gain factor of the tuner varies, and that the gain factor $A_2$ represents the gain factor of an IF amplifier that amplifies the narrowband IF signal to produce an amplified narrowband IF signal that is fed into a demodulation instance to produce a demodulated signal.

6.  (original)  Method according to claim 5, characterised in that said at least partial compensation of said variations $\Delta A_1$ of the gain factor of the first amplifier as well as of said fixed factor $A_3$ of the divider by controlling the gain factor $A_2$ of the second amplifier to achieve a minimum difference between the chain gain factor $A_C' = A_1 * A_2 * A_3$ and the target chain gain factor $A_T$ represents a part of one out of the two steps of a joint control of the gains of the tuner and the IF amplifier, which is performed in order to force the signal level of the amplified narrowband IF signal at the input of the demodulator to a constant target value, where for

steadily increasing RF signal levels said two steps are defined as:
a first step of keeping the gain factor of the tuner at its maximum
value and varying the gain factor of the IF amplifier so that the
difference between the chain gain factor $A_C'=A_1*A_2*A_3$ and the target
chain gain factor $A_T$, which steadily reduces with the steadily
increasing RF signal levels, becomes minimum, until the broadband
IF signal exceeds a dedicated dynamic range at a take-over point,
and a second step of not further reducing the gain factor $A_2$ from
said take-over point on and starting to steadily reduce the gain
factor of the tuner below its maximum value instead.


7.   (original)   Method according to claim 6, characterised in that
for said combinations of values $\Delta A_1$ and $A_T$, for which said
difference between the chain gain factor $A_C'$ and the target chain
gain factor $A_T$ can no longer be forced to zero due to the
limitation
$A_2 \leq A_{2,max}$ and the signal level of the amplified narrowband IF
signal at the input of the demodulator falls below the constant
target value accordingly, the degradation of the quality of the
demodulated signal compared to the case when said difference can be
forced to zero is insignificant.


8.   (original)   Device for increasing the sensitivity of a chain of

amplifiers, comprising: a first amplifier for amplifying a signal by a gain factor $A_1 = A_{1,m} * \Delta A_1$, where $A_{1,m}$ denotes a fixed gain factor and $\Delta A_1$ denotes a gain factor variation with

$1 \leq \Delta A_{1,min} \leq \Delta A_1 \leq \Delta A_{1,max}$, a second amplifier for further amplifying the signal by a controllable gain factor $A_2 \leq A_{2,max}$, where the second amplifier compensates the variations $\Delta A_1$ of the gain of the first amplifier, so that the difference between the chain gain factor $A_C = A_1 * A_2$ and a target chain gain factor $A_T \leq A_{T,max}$ becomes zero, characterised in that the device further comprises a divider that is arranged behind the second amplifier and applies a fixed factor $A_3 \leq 1$ to its input, where the second amplifier at least partially compensates the variations $\Delta A_1$ of the gain factor $A_1$ of the first amplifier as well as the fixed factor $A_3$, so that the difference between the chain gain factor $A_C' = A_1 * A_2 * A_3$ and the target chain gain factor $A_T$ becomes minimum, and where the fixed factor $A_3$ is chosen so that there exist at least some combinations of values $\Delta A_1$ and $A_T$ for which said difference can be forced to zero, and some combinations of values $\Delta A_1$ and $A_T$, for which said difference can no longer be forced to zero due to the limitation $A_2 \leq A_{2,max}$.

9. (original) Device according to claim 8, characterised in that the first amplifier represents both a tuner that down-converts a modulated Radio Frequency (RF) signal to a broadband Intermediate

Frequency (IF) signal and an IF filter that transforms the broadband IF signal into a narrowband IF signal, where the gain factor of the IF filter is fixed and the maximum gain factor of the tuner varies due to the manufacturing process, and that the second amplifier represents an IF amplifier that amplifies the narrowband IF signal to produce an amplified narrowband IF signal that is fed into a demodulation instance to produce a demodulated signal.

10. (currently amended) Device according to ~~any of the claims 8-9~~ claim 8, characterised in that said divider is a voltage divider.